Regarding RM 10870, a petition by NCVEC to restructure Amateur Radio service licenses

I am essentially in agreement with this petition, though I have a few points that I think should be raised and some suggested modifications.

In paragraph 13, the petitioner discusses the complexity of the current Technician exam, but omits one key reason: The current Technician exam covers two major topics that are essentially unrelated.

One major topic is essentially about how to operate a station. It covers regulations, types of communications and how to carry them out, how to select a frequency, how to assemble a station from major components, etc. In driving, the analogy would be "How to drive a car".

The other major topic is basic engineering. It covers resistance, capacitance, inductance, etc, active and passive components, oscillator design, etc. You might think the analogy is "How to build a car", but in fact course of study for a Technician does not fully prepare one to build a radio. It does, however, serve as a necessary introduction.

The Communicator license proposed by this petition is an opportunity to separate those major topics, with more emphasis on operation than construction.

In paragraph 19(c): I don't see a particular need to have a special range of call signs.

In paragraph 19(d): I agree that limited power levels are a good way reduce the concern of RF exposure among operators who are not yet familiar with RF safety. However, there are some facts that suggest to me that slightly higher limits could be consistent with safety.

I have some familiarity with Marine SSB as used in small boats. I believe the formal name is "Ship's Radio Service".

Commercially available SSB transmitters for small boats to use in the marine band typically have a power output of 150 watts. Of the models I have encountered, all can also transmit on the Amateur bands if the user has an appropriate license. Since this equipment is typically used for another service where it has type acceptance, the Amateur operator may use it as-is but may not make modifications to it without voiding the type acceptance for marine use. If it is properly installed and is safe for use in the Marine bands, it is also safe for use in the Amateur bands. Similar cases may exist for other radio services that I am not familiar with.

There are a significant number of Amateur operators on boats equipped with HF SSB, and there are a number of nets that meet daily to discuss various concerns of boaters. For example, there was a case in the news some time ago where Amateur radio operators were able to relay medical advice from a doctor to a family whose boat was attacked by pirates. This seems a highly appropriate use of Amateur radio, and while the family could have legally used their Marine HF radio on the Amateur bands for the emergency, it is unlikely that they would have had familiarity with net operating protocols or known what frequency to call on. In short, I believe the fact that they were already participating saved valuable minutes that could have been wasted calling around.

I see two ways you can regulate to encourage this kind of participation. One is to simply allow a higher power output on HF of 150 or 200 watts. The other is to allow a higher (but still limited) power output when using a system that was installed for another radio service, assuming that it has not been modified in a way that would void its type acceptance for that service.

In paragraph 19(e): The 28 volt limit would seem appropriate for equipment built for the Amateur service because the operator may actually work on the equipment. Again, I suggest that this limit not apply to equipment from another radio service that the user is not going to repair.

It may be helpful for the regulations to explicitly state that anything that voids the type acceptance for the other service implicitly converts the radio into an Amateur-only radio, where it would then be subject to the Amateur limits.

In paragraph 19(h): The sub-bands allowed to the Communicator license should be chosen to maximize their interaction with Amateurs with higher licenses. (more on this below) As such, I think that Communicator should be allowed the frequencies that are allowed to General class, within the bands specified. I observe that many nets operate in sub-bands that are not available to the Technician with Morse Code licenses.

I cannot see a good reason the exclude the 20 meter band (at around 14 MHz) from this license class. A good deal of Amateur activity takes place in this band, so the Communicator license should be allowed to operate there.

The 450 MHz band as an upper limit seems reasonable from the point of view of RF safety.

In paragraph 22: As mentioned above, I believe the band plan should maximize opportunities for the Communicator to communicate with other types of licenses, and therefore should include the 20 meter band and should match the General class operating privileges.

In paragraph 28: I know that the Morse code requirement is a deterrent because I personally was deterred from getting an Amateur license by the code requirement. I have always had an interest in radio and electronics, and in fact could pass the General class test easily if it were not for the code requirement. I am writing this comment precisely because I was thinking recently of trying for a General class license to gain HF privileges and I tried once again to learn Morse code. It is just as hard now as it was 25 years ago. I know that because I have absolutely no interest in that operating mode, so I know I would only use it long enough to pass the test – which apparently place me in good company with a large number of radio amateurs. This makes the code requirement just an unpleasant hoop to jump through.

[Incidentally, I hear that the CW sub-bands are crowded. It seems enough people want to use code that it is not necessary to provide artificial incentives.]

A comment on frequency allocations and upgrade incentives: For as long as I have been familiar with Amateur radio, there has been an implicit assumption that additional spectrum is an important incentive to upgrade to higher license classes. Long ago, when there were many license classes and the lower classes had very narrow allocations, it was in fact an incentive.

In the current environment, where we have relatively few license classes, that seems less relevant. Especially in the context of this new license, I think it is important to avoid Balkanizing the license classes by unnecessarily limiting the frequencies available to the Communicator license. We very much want the Communicator class talking to the General and Advanced class on a regular basis, so that they become immersed in the culture of good operating practices.

If the Communicators do not learn the culture from the existing operators, who as a whole conduct themselves in an exemplary fashion, they will necessarily make up their own, and bring the new attitudes with them when the upgrade to General or Advanced. Since the new operators of today will be the "old hands" a few decades from now, we want to give them the best opportunity to learn good practices now.

We still need some incentives – but the incentive we need to give is not to upgrade to a higher license class (a mere formality), but to gain the knowledge that is implied by that upgrade. We don't want people learning only a minimal perfunctory knowledge about electronics because they see it as a way to get access to more spectrum. We want them to gain that knowledge so that they can apply it.

That is where I see the major incentive for advancement here. It may well be that many people will retain Communicator licenses for their whole lives. That would be fine, since I believe the Amateur Radio Service is better off with them than without them. But the incentive for those who do want to advance is the opportunity to apply their newly gained knowledge.

Assembling your own equipment is a major area of interest for many Amateurs. We don't need to use spectrum allocations to make them want to learn how to do it. The opportunity to build ones own equipment is incentive enough, and the principal reason that we need another license class is to be sure that one builds it competently and safely.